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EXAMINER

CHUNG, JASON J

ART UNIT

PAPER NUMBER

2611

DATE MAILED: 03/01/2004

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/729,660

Applicant(s)

GORDON ET AL.

Examiner

Jason J. Chung

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☒ Claim(s) 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

Claim 11 is objected to because of the following informalities: claim 11 does not have a period at the end of the claim. The examiner requests the applicant to put a period at the end of the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-3, 5, 8-11, 13, 16, 18, 21, 24, 25, 28, 30, 31 are rejected under 35 U.S.C. 103(a) as being unpatentable by Nijima (US Patent # 5,926,230) in view of Fuller (US Patent # 5,729,279).

Regarding claim 1, Nijima discloses receiving a plurality of screens for programs on broadcasting channels and MPEG video decoders extract the plurality of screens for program selection (column 5, lines 45-64). Nijima discloses the multi-program screens (column 6, lines 28-64). Nijima discloses a plurality of screens are individually compressed by the MPEG system (column 7, lines 1-20), which meets the limitation on defining a plurality of slice locations for a guide region of the user interface, wherein each slice location corresponds to a respective area and location in the guide region.

Nijima discloses the there are 54 channels supplied to the multi-screen production circuits and the digital signals are supplied to the MPEG decoders (column 10, lines 34-48). Nijima discloses the multi-screen production circuit includes nine RAMs each which data of nine screens of different programs inputted to the multi-screen production circuit are stored and the nine screens are reduced to 1/3 in the vertical and horizontal direction (column 10, lines 49-56). Nijima discloses each screen is reduced to produce an image of reduced 3 by 3 screens that results in 6 screens (column 10, line 57-column 11, line 10), which meets the limitation on a plurality of guide slices for each of at least one slice location in the guide region

Nijima discloses the programs are transmitted after digitized by the digitization section (column 9, lines 7-13). Nijima discloses the program digitization section converts video and audio signals from analog signals into digital signals outputted from a MPEG video encoder/multiplex system (column 10, lines 34-48), which meets the limitation on encoding one or more guide slices for each slice location in the guide region and transmitting one or more encoded guide slices for each slice location in the guide region.

Nijima fails to disclose **associating** a plurality of guide slices for each of at least one location in the guide region. Fuller discloses the MPEG bitstream consisting of headers (column 19, lines 28-44). Fuller discloses the header provides information for where the encoded data is to be placed and gives the information to the decoder (column 22, lines 6-32), which meets the limitation on associating. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nijima to have the header include location information as taught by Fuller in order to properly place the image in the correct quadrant of the screen.

Regarding claim 2, Nijima discloses that there are 6 pages and each page has 9 programs (column 7, lines 1-20); the additional pages that are not displayed has guide slices that are not associated with the plurality of guide slices that are displayed, which meets the limitation on associating one guide slice for each slice location in the guide region not associated with a plurality of guide slices.

Regarding claim 3, Nijima discloses that there are 6 pages and each page has 9 programs (column 7, lines 1-20), which meets the limitation on a plurality of sets of guide slices are transmitted for the plurality of slice locations in the guide region.

Regarding claim 5, Nijima discloses the 6 multiscreens are individually compressed (column 7, lines 1-20). The MPEG in the reference of Nijima inherently transmits groups of I frames, B frames, and P frames, which are a group of pictures, which is a standard in MPEG, which meets the limitation on set of guide slices is transmitted for each group of pictures.

Regarding claim 6, the MPEG in the reference of Nijima have streams that inherently have time stamping information in the header of the packet in order to determine when to encode and present information.

Regarding claims 8-9, the MPEG transport stream in the reference of Nijima inherently includes packet identifiers for identifying particular types of packets.

Regarding claim 10, Nijima discloses the broadcasting system using a DSS and the individual channels reduces the screens of a plurality of channels and forms a multi screen of one broadcasting channel (column 7, lines 40-65); the programs for each of the reduced images on the screen are continuously broadcasted, which meets the limitation on continually transmitting a first set of guide slices for the plurality of slice locations in the guide region.

Regarding claim 11, Nijima discloses that there are 6 pages and each page has 9 programs, the programs each have a time at which they are to be broadcasted (column 7, lines 1-20), which meets the limitation on transmitting one or more additional guide slices at a designated time.

Regarding claim 13, MPEG inherently has I frames, B frames, and P frames, which are intracoded frames, bi-directional frames, and predicted frames respectively used for compression.

Regarding claim 16, the limitations in claim 16 have been met in claim 1 rejection.

Regarding claim 18, Nijima discloses the multi-program screens (column 6, lines 28-64). Nijima discloses a plurality of screens are individually compressed by the MPEG system (column 7, lines 1-20), which meets the limitation on receiving a bitstream comprising packets for a plurality of slices for a guide region of the user interface, wherein each slice is designated for presentation at a particular slice location in the guide region, and wherein multiple slices are transmitted for each of at least one slice location in the guide region.

Nijima discloses the programs are transmitted after digitized by the digitization section (column 9, lines 7-13). Nijima discloses the program digitization section converts video and audio signals from analog signals into digital signals outputted from a MPEG video encoder/multiplex system (column 10, lines 34-48). Nijima discloses receiving a plurality of screens for programs on broadcasting channels and MPEG video decoders extract the plurality of screens for program selection (column 5, lines 45-64), which meets the limitation on retrieving from the bitstream packets for a set of slices for the guide region.

Nijima discloses the multi-screen production circuit includes nine RAMs each which data of nine screens of different programs inputted to the multi-screen production circuit are stored and the nine screens are reduced to 1/3 in the vertical and horizontal direction (column 10, lines 49-56). Nijima discloses each screen is reduced to produce an image of reduced 3 by 3 screens that results in 6 screens (column 10, line 57-column 11, line 10). Nijima discloses the there are 54 channels supplied to the multi-screen production circuits and the digital signals are supplied to the MPEG decoders (column 10, lines 34-48), which meets the limitation on decoding the retrieved packets to form the guide region of the user interface.

Regarding claim 21, Nijima discloses the programs are in digital form before transmission (column 9, lines 7-13). Nijima discloses the programs are in MPEG form (column 10, lines 34-48). Nijima discloses the user can select the program in the center is displayed in place of the reduced screens (column 12, lines 32-46), which meets the limitation on receiving a user selection for a particular slice location of the guide region and retrieving from the bitstream packets for an additional slice associated with the selected slice location and decoding the retrieved packets for the additional slice to form an updated user interface having included therein the additional slice.

Regarding claim 24, Nijima fails to disclose the header identifies the location where the decoded information is presented. Fuller discloses the MPEG bitstream consisting of headers (column 19, lines 28-44). Fuller discloses the header provides information for where the encoded data is to be placed and gives the information to the decoder (column 22, lines 6-32), which meets the limitation on the header identifies the location where the decoded information is placed. It would have been obvious to one of ordinary skill in the art at the time the invention

was made to modify Niijima to have the header include location information as taught by Fuller in order to properly place the image in the correct quadrant of the screen.

Regarding claim 25, the limitation for the header having location information is disclosed by Fuller in claim 24 rejection. Niijima discloses the reduced screen can be displayed on the monitor (column 13, lines 19-41). Niijima discloses the screens can be scrolled through (column 21, lines 22-65). Niijima discloses oblique scrolling (column 21, line 66-column 22, line 24), which meets the limitation on modifying a property of each of one or more decoded slices for presentation at locations on the user interface different from locations identified by headers of the decoded slices.

Regarding claim 28, the limitations in claim 28 have been met in claim 18 rejection.

Regarding claim 30, Niijima discloses the broadcasting can be via a satellite (column 9, lines 14-46). Niijima discloses a demodulator (column 14, lines 16-22).

Niijima discloses digitization prior to transmitting (column 9, lines 7-13). Niijima discloses the MPEG encoding video signals prior to transmission (column 10, lines 34-48). Niijima discloses a demultiplexer (column 14, lines 38-48); in MPEG, there is inherently a transport stream, which meets the limitation on a transport stream demultiplexer.

Niijima discloses MPEG video decoders (column 14, lines 49-65), which meets the limitation on the video decoders coupled to the demultiplexer.

Regarding claim 31, the limitations in claim 31 have been met in claim 25 rejection.

2. Claims 4, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niijima.

Regarding claim 4, as disclosed in claim 1 rejection, Niijima discloses the transmitter has a multiplex system. Niijima fails to disclose time division multiplexing. The examiner takes

Official Notice that time division multiplexing is notoriously well known in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nijima to have the mutiplexer be a time division multiplexer in order to.

Regarding claim 20, the limitations in claim 20 have been met in claim 4 rejection.

3. Claims 6, 19, are rejected under 35 U.S.C. 103(a) as being unpatentable over Nijima in view of Fuller in further view of Kato (US Patent # 6,504,576).

Regarding claims 6, 19, Nijima fails to disclose the presentation at a designated time according to headers. Kato discloses the MPEG stream has packets that comprise of headers and the headers have decoding time and display time information, which meets the limitation on time stamping for presentation at a designated time. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nijima to have headers with timing information for decoding and presentation as taught by Kato in order to properly present the decoded stream in a synchronous fashion.

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nijima in view of Fuller in further view of Banker (US Patent # 5,485,221).

Regarding claim 7, as disclosed in claim 1 rejection, Nijima discloses the transmission of guide slices. Nijima fails to disclose the guide slices comprise a partial set of guide slices in the region. Banker discloses the EPG data may be too much for the receiver so only selected portions of the EPG data is going to be transmitted (column 7, lines 13-26). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nijima to have only a portion of EPG data transmitted as taught by Banker in order to preserve system memory.

5. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nijima in view of Fuller in further view of Ozkan (US Patent # 5,946,045).

Regarding claim 12, as disclosed in claim 1 rejection, Nijima discloses slices of programming guide data being transmitted. Nijima discloses it is an object of the invention to have the program found quickly and with certainty (column 1, lines 60-64). Nijima fails to disclose the user requesting additional information for the program guide. Ozkan discloses the user can request a program guide (column 9, lines 3-21). Ozkan discloses the user selects a special program guide, the program guide is transmitted to the user only on a selected video channel (column 9, lines 50-60), which meets the limitation on in response to a user request. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nijima to have a user request additional guide information as taught by Ozkan in order to present to the user only a selected few channels thereby allowing rapid selection.

6. Claims 14, 22, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nijima in view of Fuller in further view of Phillips (US Patent # 5,510,842).

The MPEG signal in Nijima inherently has a start code, which is a standard in MPEG to determine when to start decoding. Nijima fails to disclose a header with a start **and** stop location. Phillips discloses a start and stop code (column 5, lines 36-53), which meets the limitation on a header with a start and stop code. It would have been obvious to one of ordinary skill in the art to modify Nijima to have a stop code as taught by Phillips in order to determine when to stop decoding thereby preserving system resources and processing.

Regarding claim 22, the limitations in claim 22 have been met in claim 14 rejection.

Regarding claim 23, Niijima discloses MPEG 2 (column 15, lines 4-12). Phillips discloses MPEG 2 (column 3, lines 27-35).

7. Claims 15, 17, 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niijima in view of Fuller in further view of Steyer (US Patent # 5,822,014).

Regarding claim 15, Niijima discloses the program PROG2 is displayed on the small picture (column 12, lines 32-46). Niijima fails to disclose each slice location includes program data. Niijima discloses it is an object of the invention to quickly and intuitively identify program (column 1, lines 60-64). Steyer discloses a program guide in a mosaic (column 6, lines 4-12). Steyer discloses a program guide can comprise text and images (column 6, lines 33-48), which meets the limitation on a slice location includes guide data for a program guide. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Niijima to have each slice location have program guide data in every slice location so the user can more easily identify what program is being broadcasted by reading the text.

Regarding claims 17, 29, the limitations in claims 17, 29 have been met in claim 15 rejection.

8. Claims 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niijima in view of Fuller in further view of White (US Patent # 5,596,373).

Regarding claim 26, Niijima fails to disclose the guide slices being combined with an additional region on the user interface. White discloses the incoming data stream includes the broadcast program and the EPG data (column 3, lines 40-56). White discloses the program guide is superimposed on the broadcast channel (column 8, lines 21-39), which meets the limitation on recombining the slices for the guide region with slices for at least one additional region in the

user interface. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nijima to have the guide slices recombined with an additional region of the user interface as taught by White in order to view a program and a program guide at the same time.

Regarding claim 27, Nijima discloses MPEG 2 (column 15, lines 4-12), which meets the limitation on splicing defined by MPEG 2.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason J. Chung whose telephone number is (703) 305-7362. The examiner can normally be reached on M-F, 7:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew I. Faile can be reached on (703) 305-4380. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JJC


JASON J. CHUNG
PATENT EXAMINER